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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,119

12/11/2003

Stephen M. Dershem

QUANT1350-1
(028248-2302)

1929

7590

10/05/2006

EXAMINER

SANDERS, KRIELLION ANTIONETTE

Steven C. Bauman
HENKEL CORPORATION
1001 Trout Brook Crossing
Legal Department
Rocky Hill, CT 06067

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,119

Applicant(s)

DERSHEM ET AL.

Examiner

Kriellion A. Sanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/16/06 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 36 is rejected under 35 U.S.C. 103(a), as being unpatentable over Ishida et al, US Patent No. 6,207,786.

3. The patented disclosure teaches an adhesive comprising a benzoxazine in liquid form. The epoxy into which the benzoxazine is mixed is liquid and thermosetting. A cure initiator is also used. See col. 7, line 28 through col. 8, line 19 and claims 1-16.

4. Applicant argues that the present claims exclude the required phenolic of Ishida et al. Applicant is advised that claim 36 is directed to thermosetting resin composition consisting essentially of a benzoxazine, thermoset compounds including epoxy and other thermoset

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compounds and a cure initiator. Applicant's claim 36 is obvious over Ishida et al because the present claim terminology "including" does not preclude additional thermoset compounds such as phenolics. Ishida indicates that the patented adhesives are useful wherein their easily modified coefficient of expansion would be of value. They are also said to be useful in composites such as circuit boards. See col. 8, lines 9-19, claims 1 and 2.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 36-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al, US Patent No. 6,207,786 as applied to claim 36 above and further in view of Davis et al, US Patent No. 6,906,120 and further in view of Dershem et al., US Patent Nos. 6,034,194 or 6,034,195.

7. Davis discloses an adhesive composition of benzoxazine, a thermoset compound such as those including epoxy and phenolics, a cure promoter and optional adjuvants. Patentee also discloses the use of the compositions as an adhesive for metal substrates including copper. Applicant's claimed composition and method are considered obvious over the combined disclosures of the references, which suggest each parameter of applicant's process steps. The ordinary practitioner would be knowledgeable as to which substrates are electrically or thermally conductive, particularly in the manufacture of circuit boards or other electronic parts. Davis discloses circuit boards. See col. 2, lines 36-54 and col. 9, line 43 through col. 11, line 5.

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Dershem et al. indicates specifically that maleimides of the disclosed formulae are suitable for making adhesive compositions with high flexibility and low moisture uptake. It would have been obvious to one of ordinary skill in the art to employ the maleimides of Dersham et al. '194 or '195 as those polyimides suggested by Davis et al. for formulating adhesive compositions.

1. Applicant's arguments filed 6/16/06 have been fully considered but they are not persuasive. In regards to the rejections under 35 USC 102, applicant argues that Ishida et al requires the use of a phenolic resin not required by applicant and that Davis requires the use of poly(arylenether) resin not required by applicant. These arguments have not been found to be persuasive in that applicant's use of the term, "including" to describe suitable thermoplastic compounds allows for the inclusion of various thermoplastic compounds not specifically set forth in applicant's claims. Therefor the phenolic resin of Ishida et al and the poly(arylenether) resin of Davis are not seen to be omitted from applicant's claims.

2. Applicant further avers that the patented inventions do not include a limitation that suggests that the materials that are adhered together have different coefficients of thermal expansion. However, because the patented and presently claimed inventions possess the same components, a property such as coefficient of thermal expansion for those components is considered to be inherent to the components because a component and its properties cannot be separated.

3. Contrary to applicant's statement at page 12, paragraph 1, applicant is advised that present claim 44 requires the maleimide be in liquid form.

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4. As to the rejection under 35 USC 103, applicant has pointed out where he finds the Dersham references to be deficient. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

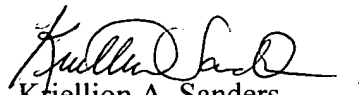
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will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 8:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kriellion A. Sanders
Primary Examiner
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